UDY OF EXCHANGE

A STUDY of EXCHANGE

DIRECT

AND THROUGH THE MEDIUM OF CURRENCY

SHOWING THE DISASTER

OF THE

Excessive Multiplication

OF

The World's Currencies

AND HOW

RECOVERY CANNOT BE SECURED EXCEPT BY WAY OF

REDEMPTION

A

SINE QUA NON

Though alone by no means a sufficient measure of recovery.

BY

SIR LANCELOT HARE, K.C.S.I., C.I.E.

"Their eyes were blinded that they could not see"

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P. S. KING & SON, LTD.
ORCHARD HOUSE, WESTMINSTER

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FOREWORD.

In this little book I set forth a study of exchanges, exchange direct and exchange through a medium.

Of the importance of understanding the principles which govern exchange there can be no doubt, for it is by exchange that all men live, and without exchange no human life could long exist. In the ultimate analysis exchange is of services.* These may be exchanged directly, or they may be exchanged through a medium. The medium employed is termed currency (legal currency), and every independent or sovereign country has its own separate currency. Currency then is an instrument for effecting exchanges which are made through it as a medium. Practically in the world as it is to-day, in industrial countries this includes nearly all exchanges. Hence the importance of this study, for if the medium currency is misunderstood, and is improperly handled, great disaster can result.

One of the manifestations of the world's troubles, that of godowns full of goods made at a price so high that they cannot be bought, with a consequent holding up of further production and

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* See Appendix C.

vast unemployment, is manifestly due to the multiplication of currency. It is strange that this *vera causa* cannot be seen and realised, and measures taken to counteract it. That there are admittedly many other causes to produce high prices does not in the least do away with this one. To suppose that such an enormous multiplication of currency as has taken place has no effect is surely futile. No one has put forward any effect which it can cause other than that which we can see—viz., prices forced up beyond what people can pay, with all the consequent results. As currency is multiplied unduly the foundation upon which all exchanges are made is constantly slipping away.

The world is now suffering most disastrously from misunderstanding and improper handling of currency, and it is to show the true principles which govern currency and exchange that this book is written. At the same time I show the principles which must govern the use of currency, and the measures which must be taken to regulate it if the world is to recover from what is to-day one of its greatest troubles. And these measures must be taken not in one country alone, but in every country, and as each country adopts them, each such country will infinitely gain. The *full* benefit of the reforms to the *world* will not be secured until all countries adopt these reforms, because to-day all the countries of the world are so intimately allied in matters of exchange, as in other matters. But still, and notwithstand-

ing, every country's gain will be a gain not only to itself, but to the world.

It is strange that no part of the injury which the world is now suffering from, viz., the undue multiplication of its currency, is attributed to this, its cause, and that consequently no measures are being adopted dealing directly and adequately with currency. To future generations it will seem unbelievable that such an obvious conclusion has not been drawn, and that in currency management any and every device but the right one, viz., to correct the mistake of over multiplication, is recommended. Surely, looking back, future generations will say we are like the kitten running after its own tail in our search for a solution of the high prices difficulty. The principle laid down by the Brussels Conference that no country should further increase its currency has been accepted, but in no country does it seem to have been adopted. Into the gold currency countries more of the world's gold has been poured, increasing the currency in those countries. In other countries with a token currency there has been multiplication, and in our own country the law declaring that our fiduciary notes should not be multiplied beyond what they were at a stated date has been made of little effect by the issue of an enormous number of Bank of England notes under cover of gold. And so as average prices move downward under the influence of increased production, they are pushed up again by this multiplication of currency. And as such multi-

plication follows no conceivable principle, but is wholly opportunist, no one can calculate with any certainty how any contract will work out, if it is one which is of any long duration. It is, of course, true that this undue multiplication of currency is not the only, and possibly at some moments not a principal, cause of the world's present distress, but it is all the same a very real cause. It seems by many to be thought that a cause or a force may be neglected because there are other more important forces and causes at work. The principle expressed in mathematics by "every force has its full effect in its own direction" is the expression of a universal philosophic truth. And for the world's welfare a satisfactory basis of exchange of services is an absolute necessity, though by no means a sufficient remedy for the world's distress. The sooner it is taken in hand the better for the welfare of those whose currency will be redeemed.

And it is from the bottom that the currencies must be repaired. Each country must reform its own and make it suitable to its needs and maintain it in this condition. Then an international world-stable currency can be built—it indeed will build itself automatically—in respect of all the countries whose currencies have been reformed. No wall can be built with unstable bricks. It is probably useless, therefore, to try and reform from the other—the international—end, though much assistance and insistence can be given by one country to another.

As to currency, the problem must be re-envisaged. Currency is a measure of values. Value, therefore, must be the ruling condition, and value must rule the currency and not be at the sport of currency, varying automatically with the value of gold or arbitrarily on no fixed principle, but mere opportunism and the needs of the Treasury.

I would, in further support of the views expressed here, refer to my arguments in my "Currency and Prices"* and "Currency and Employment,"* which also in their appendices state certain facts necessary for a right understanding of the problem.

It can never be too soon to redeem the currency, and steps might have been taken in England while money, owing to the repayment of many loans in September last, was comparatively easy.

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* P. S. King & Son, Ltd., Orchard House, Westminster, S.W.1.

A STUDY OF EXCHANGE

"Yet this extraordinarily difficult problem of the exchanges, which puzzles the greatest economists, practical and theoretical, the bankers as well as the professors, has been relegated to the office-boys of the Government."

This appeared in the *Evening Standard*, issue of 7th June, 1921. May I submit that if what is stated is true, there is no reason why it should always continue to be so? The problem is by no means beyond solution by human wit, and it is to be found in an examination of the functions of currencies and experience of their practical working. And I say this notwithstanding the Government of India's solemn declaration of its impotency (see *Times* report, 2nd March, 1921, Indian Budget statement).

The Data of the Argument.

All the world admits that currency is a medium of exchange and a standard of value, and it is in

the expansion of these two fundamental and true ideas that the solution of the apparently hopeless puzzle of the management of currency will be found. Just in the same way the expansion of the two ideas, "Love thy neighbour as thyself" and "Do unto others as you would they should do unto you," will be found to give the right answer, or shall I say the right direction to the answer, to all the practical problems of Christian conduct.

Exchange.

When people speak of the exchanges, they frequently are thinking only of the foreign exchanges, *i.e.*, of the exchanges of one currency for another; but this is only a very limited application of general exchanges, and important as these are, they are nothing like the most important. It is best to consider ordinary or universal exchanges first. Let us make a graphical representation. For this purpose let me use the figure ∞, the love-knot, to express "exchanges for," just as we use × to express "multiplied by" or ÷ to express "divided by."

Let A represent any goods or service and p be its multiple, and let B represent any other goods or service and q be its multiple. Then

$$pA \infty qB$$

expresses any and every exchange. It may also express the sum of all the exchanges taking place in a given time. In this case A or B might be an item of currency.

Now this is exchange direct and simple. If, say, B were an item of currency, then $A = \frac{qB}{p}$ would represent the price of A, viz., so many items of currency B.

If both A and B were goods or services, then no currency comes in at all, and no medium of exchange is used. The exchange is direct. The principle of exchange is the same, but the price of A, if it were thought convenient to use the term "price" in such an exchange, would be expressed in terms of the goods B. Again, supposing both A and B were items of currency. First let us say items of the same currency. Well, it has no meaning to say a thing is exchanged for itself, but an item of currency in being can be exchanged for an item in promise, and it is seen that currency is exchanged to-day for a promise to return the same or more currency at a future date, or to return something at intervals.

Again, an item of the currency of one country can be exchanged for an item of the currency of another country, and then is seen what is termed foreign exchange.

Exchange is of Goods and Services.

Now a little consideration will show us that what always *ultimately* takes place is the exchange of goods or services for goods or services. Also, it will appear that in the industrial countries these are practically always exchanged through the medium of currency. If a man wants to

exchange a town house for a yacht, he is very unlikely to find a man with a suitable yacht who wants his town house. He sells his house for currency and buys his yacht. And a man who works in a factory is similarly obliged to exchange his work for currency, and to exchange the currency for the goods he wants.

Exchanges are made through Currency.

He can very rarely, indeed, exchange direct. Even when he can do so, he always measures the values of the goods exchanged in terms of a common denominator, and this is usually the legal currency.

Graphic Representation of Exchange.

Then the most convenient way of expressing a universal exchange will be if C is the unit of currency and r its multiple :

$$pA \propto rC \propto qB$$

One of the first qualities of exchange is inversion. Exchange *is* inversion. Each of the things exchanged takes the place of the other. It is turned over to the place of the other, and this is inversion. Then we see at once that the exchange of A for B, as above exhibited, is by a double process of exchange. The same medium is used twice, and as each time there is inversion, there is double inversion of the medium, and the medium remains as it was, or we may say comes back to where it was. Also in the case of such a *single*

complete exchange of services, it does not matter what the currency is in respect of the relation of A to B.

Multiplication of Currencies varies Contracts made in terms of Currencies.

If a man lends *any* article to be used for exchanges and it is returned to him at the end of the exchanges, it leaves him exactly where he was, whether it is a promise to pay £1 or £1,000. But *en revanche*, if it is altered or changed during the transaction clearly there is a great upset. If calculating that he will get qB at the end, a man exchanges pA for rC and before he has made the next exchange, C alters in his hands, say it melts away like ice, his whole expectation is upset. He will not get qB. Again, if rC represents too high a figure neither A nor B may be able to produce it and no exchange can go forward, but only rich profiteers can exchange. Then the question arises, can C, the currency, change? Certainly it can. It is a commodity, like A or B in this respect: that *in exchange* if it is multiplied in excess of the demand it falls in value.

Demand and Supply in Exchange.

Now, what is this which is called demand in an exchange? Clearly, looking at the graphical representation, it is that which is put up against the article to be exchanged. If A ∞ B, then B is the demand for A. and similarly A is the demand for B. Again, let us look at supply.

What is supply in an exchange? Clearly if $A \infty B$, then A is the supply of A in the exchange and B is the supply of B. This is so obvious as to appear almost foolish to mention.

What is the practical outcome of this mention of the obvious? What is it I wish to bring to notice? First of all it is that in an exchange supply and demand, which are the principal incidents or features of an exchange, are relative. Because we can and do consider them separately and apart from exchange, we are apt to imagine that in an exchange we can do so also. But in relation to, *i.e.*, *in* an exchange, these terms must clearly have their exchange meaning and not their general meaning. While supply may be conceived in the abstract as a quantity and demand as a desire or want expressed by the things given in exchange, in the concrete in an actual exchange they are something more, viz., two quantities balanced over against each other, and named alternatively, according to the different points from which they are viewed.

Men are apt to overlook or misunderstand what precisely these terms "supply" and "demand," when used in respect of an exchange, mean. A proper grasp and understanding of these ideas is necessary for a full understanding of exchange. I have expressed this same idea as to supply and demand in connection with exchange at p. 17 of my book "Currency and Prices."

Relativity Argument.

Most people who have not given the subject of currency any consideration are apt to think of currency as any sort of goods and not a special sort with very special characteristics and limited use. They can see that boots would be no use to those who do not wear them and are made to keep our poor feet out of the mud, but do not realise that currency similarly is good only for its special purpose of exchange. When it takes on the form of goods, as when the sovereign is turned into gold, it *ipso facto* ceases to be currency. Currency is, in fact, a machine just as much as is the motor. And all the treasurers of all the governments in the world, like incompetent chauffeurs, through their ignorance and incapacity or their greed have gone far to, and in some cases succeeded in, damaging or wrecking the currency machine.

Now being relative terms it is clear that neither supply nor demand can be considered apart from its relation, and it is not possible to take either in the abstract. This is the mistake which the quantitative theory of currency as ordinarily accepted makes, and the failure to recognise the practical consequences of this fact has been very disastrous. For instance, when the Armistice came, the demand for currency for war wages, both of soldiers and industrials, and for their purchases with these wages, fell off. Then prices continued to rise though currency itself was not

increased. This should not have been permitted, but currency should have been withdrawn before its redundancy was absorbed into higher prices. A mistake was made again when, for a temporary demand of C for such a purpose, say, as to finance a great loan of 1,000 millions, an increase of C was made which was not temporary. How prices have subsequently fallen is explained at p. 22 of my book "Currency and Employment." But unless currency is reduced this fall will not be permanent, but there will be a rise again, up to the limit which the currency and exchanges of the country will permit, a limit perhaps lower than the highest of 1919. The problem is dynamic and not static. It is true that a single exchange of services pushed through without any change of the medium may be treated as a static. But the essence of the problem is the general movement of exchange and that involves movement and is a dynamic problem. (This is a relation, or an instance of relativity, which is just as true as Professor Einstein's instances in his very different problem. Perhaps since it affects every individual in the world directly by its action on prices it is not of less importance. I treated it humorously in my Foreword to "Currency and Prices" (p. 6), but though humorously put it was very seriously meant.)

The equation or graphic representation

$$pA \propto rC \propto qB$$

may usefully receive some further study.

It may be considered as the representation of a single exchange or the sum of all the exchanges taking place within a certain time. C is to be considered strictly as an item (a unit) of the legal currency. It is not always present actually and visibly and materially in every exchange, but it is always liable to be called up. If a cheque or bill is used for the exchange, this cheque or bill is an order on some one or a promise to pay, *i.e.*, to hand over materially and visibly a certain number of the currency units. This promise or order may not be strictly and literally enforced, but, again, it is always liable to be enforced, and, therefore, the person bound must have currency units (in England notes) at his command. The enforcement of these promises varies very largely, but always there is some limitation of the amount of the promises which can be built up out of a given number of currency units. The currency unit comes into every exchange, either directly or indirectly, and its value necessarily determines prices.

The price of A is $\frac{r}{p}$, and the price of B is $\frac{r}{q}$, and every change in the value of C must alter or tend to alter all prices. There may possibly be no visible alteration if some other force comes in and interferes, but none the less the fall of the value of C has had its full effect.

And now another fact has to be considered, and it is that a currency unit, when issued, can be used again and again in exchanges.

As soon as it has completed one exchange it is free to be used in another. That is why such an enormous number of exchanges can be made with relatively quite a small amount of currency. But the important fact which this implies is the correlative fact, that the value of the currency note is up against the exchanges it can make. This is but to draw from or expose by the graphic representation the principle I now lay down as governing the value of C, viz., that it depends *on the relation between the supply of* C *to the exchanges it has to make.* Given a great increase in the number and amount of exchanges to be made with the same amount of C and its value will go up. Given a great increase of the supply of C, and the same or a diminished number of exchanges to be made with it, and its value will fall.

Currency is the Standard of Value.

And now arises the second consideration or *datum* with which I set out, viz., that currency is a standard of value. That is to say, that it is the standard of measurement of value. Now, clearly, the first quality of a standard is that it must not vary, or if it is impossible to keep it absolutely unvarying, it must vary as little as possible. It has been shown upon what the value of the currency depends. Is it possible for it to maintain an approximately unvarying value? Very clearly, it is.

In every system there must be a point upon which all the rest turns. In every argument a

datum. To every lever its fulcrum, and if the fulcrum is a moving one allowances must be made for that, but still the system turns upon it. In the case of currency it is accepted as the fact, and it cannot possibly be gainsaid that currency is a measure of value. Then the conclusion is obvious that it is the value of currency which must rule. This is the determining qualification to which the management of currency must conform. There is then under the system of exchange through a medium this determining fulcrum or point upon which all the system turns. It is found that it is capable of shifting, and that when the value greatly falls this produces altogether incalculable evils such as those we see around us, and more particularly in those countries in which currency value has been by multiplication most completely destroyed. Can we not take warning then and take the measures which are needed to maintain its value, and bring it back to a sound value as quickly as may be where its value has been destroyed?

Now it is easy to show that measures can be taken for this purpose, with the effect of giving the currency any desired value, and of maintaining it at or near that value. The exchanges which can be made with a given quantity of currency can fluctuate very widely. I would call attention to what I have said on this subject in Appendix B of my "Currency and Prices" (P. S. King & Son, Ltd.). But

there is a limit to this extension, determined in practice by the fact that there is a limit to the price which can be paid for currency which is the interest on loans. When all the exchanges that can be got out of the existing quantity of currency have been obtained, a further large extension can be made by a small increase of the currency. Should this be made or not? It must be a matter of judgment and observation. Taking as a first consideration that the value of currency must be kept constant or brought to the standard which is desirable, currency can be added to bring down value or taken away to raise the value. As it may not always be possible to say whether the demand for currency is real or fictitious or temporary or permanent judgment must be exercised, and the result watched. If a mistake has been made, and it is found that value has fallen when it should have risen, currency which may have been increased must be withdrawn. The result must be observed and the anticipation always tested by the fact. It is convenient, though, perhaps, not necessary to say here that the value of currency is its average value as it is ascertained from average prices, *i.e.*, the *general* index number, as it is termed, which is ascertained from month to month.

Where it is anticipated that the demand for C is temporary Government would naturally meet it by giving it on short loan.

Greater Importance of Home Exchanges than of Foreign Exchanges.

And now to turn to that form of the exchanges which is referred to in the heading of this paper, viz., the foreign exchanges. It is easy to show that these are less important to any country than its home exchanges. For everything that is brought into a country from abroad exchanges again and again at home, and everything that goes abroad has exchanged frequently or been the cause of frequent exchanges at home, and home exchanges must include all foreign exchanges as well as all home ones, and the latter by themselves, *i.e.*, excluding those due to foreign exchanges, will be found even in the most industrial countries to be immensely more numerous than the foreign. I have seen an estimate of 80 per cent. of home to 20 per cent. of foreign for England, and in a country like India the proportion would be very much greater. But if less numerous and less important on that ground, foreign exchanges loom much more visibly in the eyes of all financiers, and so strong has been this influence that the term *exchange* is almost synonymous with *foreign exchange.*

Now in foreign exchanges the problem is amplified, and is not so simple as in home exchange, but it is governed by the same principles. The problem is different and the answer is not the same, but it can be worked out in the same way.

Graphic Representation of Foreign Exchanges.

In foreign exchanges several distinct currencies are dealt with, and it will be convenient therefore to express differently each of these currencies. Let us call them C_1, C_2, C_3, etc., respectively. Then adopting the previous notation, the expression of an exchange between two countries through the media of their currencies will be

$$pA \infty r_1C_1 \infty r_2C_2 \infty qB$$

And now again let us remember that exchange means inversion, and let us analyse a simple exchange between two countries.

Variation of Foreign Currencies varies Contracts made in terms of Foreign Currencies.

In a single foreign exchange, as in the single home exchange above dealt with, if neither C_1 nor C_2 change in value during the course of the somewhat longer process of the exchange of A for B, it will not matter as regards the relation of A to B what are the actual values of C_1 or C_2. Their values will have been discounted and considered in the calculation and approved in the exchange contract, which I need not remind my readers is, even where Government steps in and arbitrarily interferes with prices, a voluntary act approved by each of the two parties to the exchange.

Government cannot fix, but can only attempt

to fix, prices. Government can interfere, but the exchange will not go forward if the interference is such that the parties will not agree.

Again, if either C_1 or C_2 varies during the course of this exchange, journey, or process, the calculations of the parties are all upset. Unless they can tell what will be the variation of C_1 and C_2 they cannot possibly foretell where they will come out.

Uncertainty or Insecurity of Contracts.

Does not this show at once the hopeless uncertainty of the present position? The value of currency in every country with a token currency is varying owing to the arbitrary multiplication of currency. Always there has been some variation, due to variations in the quantities of goods and services to be exchanged. But when all or most countries were on a gold basis, and only a few countries, and these of less importance, made any very material alterations in their relation to gold, their currencies mostly varied all together with any variation of gold, and under normal pre-war conditions gold did not vary in value very widely nor very rapidly. The result was there was time to get most trade transactions through before any considerable variation occurred on this account. The result worked out with, or corresponded with, the expectation so far as currency was concerned.

Variations might, and often did, arise, and always may arise, in the value of the goods

A and B at the two ends of the transaction, and this independently of any variation in the currencies. Change of price may be due to goods changing in value and to currencies changing in value. These two causes are independent in source but equivalent in effect. But uncertainty is much increased with every item in the calculation which may be varied. Many goods go forward through not one only but many countries with separate and variable currencies. The graphic representation shows at once how much the number of currencies, which may vary, is increased. The token or non-gold currency countries, England, France, Belgium, Italy, Germany, Austria and Russia, etc., are all varying their currencies independently, and have unduly and excessively multiplied their currencies in the order they are named. They have all multiplied their currencies in excess of their requirements for exchange, and without any regard to these requirements. Their average prices have, therefore, been constantly varying, and the foreign exchanges (exchanges of the currencies of different countries) have become hopelessly incalculable.

How to Secure the Greatest Possible Stability of Foreign Exchanges.

It is to be pointed out that if all currencies remain approximately of constant value in regard to the goods and services of their countries the greatest possible advance will have been made to secure constancy of foreign exchange. Here an

examination of the graphic representation is helpful. It is seen at once that if the middle figures in the representation vary as well as the figures at the extremities, variations must be much more frequent. Indeed, any changes of value in the middle figures sooner or later vary all prices. But with the middle figures constant, pre-war conditions will return, and it will become possible to calculate again with comparative certainty since only the variations of goods and services, and increase or decrease of transactions, will, as before, require very seriously to be taken into consideration.

Uncertainty.

And now a word as to uncertainty. It is not necessary to remind those who are engaged in commerce and industry that the uncertainty of prices is holding up recovery—everyone is afraid to move or to engage in contracts because he does not know where he will come out and whether the contracts can be fulfilled.

For consider how international trade is handicapped. It is bad enough to have the currency of the home country changing. Cruel as such a change must be to one or other party to a contract, it can in a measure be foreseen and calculated and allowed for on forward contracts. The movement is probably in a constant direction and it may be more or less at a constant rate, so there is a possibility, greater or less, of some calculation. Most people also know something more or less about their own country, but when

another country and its currency comes in, with every new country new and unknown and unforetellable conditions arise. whereby uncertainty is much increased.

Uncertainty Further Considered.

I must say a word more about this grave condition of uncertainty. In a long experience of administration I could point to innumerable instances of the fatal effect of uncertainty on conduct, and more particularly on economy, with which we are now dealing. Is it in human nature to produce or take any continued, determined or laborious exertion without a selfish motive? Without undervaluing the altruistic motives and the magnificent part they play in human life, the egotistic are admittedly more universal and more strong. Where will be found general and continued exertion except on an anticipated reward? —and with every addition of uncertainty of the reward exertion and effort will decline.

Look where you will and you will find this universal law. The Russian peasants (cultivators), to give the most recent great example, will not produce much more than is enough to keep themselves alive, since for anything more they can get no return. It is mostly taken from them without pretence of any return, but if they can get any of it into market they find there no goods with which they can exchange. But I need not amplify instances. Will anyone find me a single workman in any country who will or

can work day in and day out without his wages ?—not here, at least, where all stand out for higher wages.

It is unnecessary to say more as to the ruinous effect of uncertainty. Depreciation of the many currencies of the world upsets all customary prices, and leaves all the world uncertain where they will come out. This is, however, a comparatively new experience, since fortunately before the war it was not a common or universal experience, and so it has not received sufficient attention. An examination of the graphic representation at once shows the inevitable connection between the two. It is principally long-timed deferred contracts which suffer, and it is not fully appreciated how numerous, indeed, in a measure almost universal, are such contracts. They are by no means confined to pensions and incomes from savings invested. All wages and prices are more or less customary and are only upset or varied under very great provocation, except perhaps in a time like the present, when the whole basis of prices is being or has been everywhere dissolved.

Increase of Currency in the Gold Currency Countries as well as in the Token Currency Countries.

All countries have sinned in their dealing with currency. It is quite obvious that this is so as regards the token currency countries which have increased their **C** in the ascending scale

given above. There may be some who will not see how there has been sinning in the gold currency countries. The essential conditions of gold currency, the conditions which constitute any country a gold currency country, are, firstly, that when gold is taken to that country's mint it will be freely coined at the established parity of the country ; and, secondly, that no obstruction is put in the way of melting down coins into gold or exporting gold as coins. Any country in which these two conditions do not exist in full freedom is not a gold currency country, whatever it may be called. There are, of course, people who believe that by giving a thing a name it can be made to take on the properties of the name. The practice is very common, and indeed almost universal, and is as old as is the human mind, and in the form known as *ambiguity* is one of the most fruitful sources of error. This it is necessary to avoid. In a gold currency country notes, if they are used as currency, must be convertible freely, and in fact both by law and in practice, into gold coins. Everybody in such a country must be entitled to insist on paying or receiving payment in gold currency.

Now where the two conditions I have named, viz., unlimited coinage at the parity of the country and melting down freely exist, currency and gold must remain at a level. Let gold, which, let us say, is at America's parity 5 oz. to 100 dollars (to take round numbers for convenience), be selling at 90 dollars for the

5 oz., and anyone on the look-out will buy 5 oz. for 90 dollars, and take it to the mint and get 100, thereby making a profit. I need not say it will not take a 10 per cent. profit to send people running to the mint, but I put it at a scale at which it may be easily seen, and many items on a small profit are the equivalent of few items at a large profit.

Similarly, if I must pay 110 dollars for 5 oz. of gold in the market, I can melt down 100 dollars and obtain 5 oz. And so gold passes into currency or currency into gold whenever their values vary from the fixed parity value of the country.

Depreciation of Gold in Exchange.

Then what has happened in America? Gold withdrawn from currency in Europe has gone over to America in payment of goods. Under pre-war conditions this would have raised the value of gold in Europe and lowered it in America, and it would have flowed back so as to keep gold at the American and English parities respectively. This would restore the parities temporarily disturbed, and would have happened because it would have been profitable. But since gold has been demonetised in England there was no use in sending it back to England, for there it could not be utilised for currency. The demand for gold for their home currencies in England and Europe generally has ceased. Instead of a gold currency England has an

inconvertible paper currency* (which, incidentally be it said, has been multiplied greatly in excess of its pre-war currency).

The value of gold, and, therefore, of the currency, in America has fallen. The disuse of gold for currency in England alone would have been a serious blow to the value of gold, but this disuse has extended to almost the whole of Europe. Looking to the equation given on page 16 it will be seen that increased supply or decreased demand are equivalent. America and the other gold currency countries have suffered from this increase of supply of gold within their areas in excess of their demand, and this increase has gone into a corresponding universal rise in prices.

Or it may be said that gold has fallen in value for currency purposes because it has been less in demand for this purpose, Europe no longer utilising gold for currency.

Unsuitability of Gold as a Standard of Value.

The utter unsuitability of gold as a standard of value for exchange is manifest in history. It is only necessary to remember how the great

* The juggling at the Treasury and the pretence of giving gold coins, but not allowing them to be sent abroad or melted down, is, of course, futile foolishness. It is an instance of the foolishness of calling a new thing by an old name, and thus by allusion or illusion inducing people to think the new thing has the properties of the old thing covered by the old name. It is like insisting, when a horse has lost his legs, that he is still a horse, and assuming or implying that because he is still called a horse he can pull a cart.

discoveries of gold from time to time have profoundly modified its value. To-day, there is a similar disturbance due to its disuse in exchange in the great States of Europe. Where gold will be in the future who will say? Will more or less be found? Will it be more or less cheaply worked? Will it be more or less used in exchange? Who can answer any one of all these questions, the answer to each of which will profoundly modify the value of gold? To take such an article, open to such enormous fluctuations in value, as the standard of the measurement of value, must surely be the height of folly.

It is urged on the other side that gold is beyond the immediate control of Government, and so the hands of Government are tied. But are they so? Only as to its discovery is gold beyond man's control. As to its use it is directly under his control. And, further, what is the safety of a tie which can at any moment be broken, as was seen in Europe when the war began. *It is on the good faith of man as expressed through a nation's Government that the standard of measurement of value can alone depend, whatever standard is adopted.*

I will now give some considerations arising out of the abuse of currency.

The Poor Man Hit and Hurt: The Rich Man Hit in Part Escapes the Hurt.

The universal rise of prices which follows from a multiplication of currency hits every buyer

(and everyone is a buyer) in a way which no rise of one or a few only of the staple goods would have hit them. If a person must pay 100 per cent. more for *all* the things he buys, clearly he is harder hit than if he must do so only for one or two things. If the same money has to be distributed over the same things when more is given for some, less must be given for others, and so if the former rise in price the latter will fall. A man who is rich enough to buy all he wants may under these conditions actually gain if while paying more for certain articles he pays less for others. His food may cost more, but as the amount he can eat is limited, the extra amount he spends on this *may* be more than counter-balanced by the cheapness of a motor, which is a luxury, which many people may give up.

This, perhaps, does not often happen, but where it does it leaves such a person not much interested in keeping down prices. It is an example of the maxim "to him that has shall be given" and also an example of relativity, *i.e.*, of a relation between currency and expenses. Now, a poor person is one who has very few items of expenditure which he can reduce—which are not already fixed at a minimum—and so when he has come to the end of his income he has to sell or pawn—pawning is very often only a deferred sale—some of his accumulations. And so we see how infinitely more disastrous is this mismanagement of the currency to the poor who have no say in its management than to the rich financiers, Treasury

officers and Chancellors of the Exchequer who have so grievously mishandled it. This is a point which is of great practical importance, since it is generally the pinch of the shoe which sets us to remedy its misfit.

He Mends the Shoe who Feels the Pinch.

This inflation is essentially undemocratic as well as cruelly unjust, for it does not look to the welfare of the many by the wide distribution of cheap goods, but takes from the poverty of the many to add to the riches of the few. I look, therefore, very much to assistance in reform to those who do particularly feel the pinch and have made my exposition of the relations, which are the facts with which I deal, in as clear and simple a way as I can with a view to bring them home to those who of necessity have had very little to do with currency, and have, therefore, given to it little consideration. That there should be one man whose heart is broken in despair of work is bad enough, but what is to be said of making millions of men suffer from this cause? While our hearts must go out to them in their sufferings, it must be recognised that it is by their own efforts that the remedy will be secured. They must study and be sure of their ground and then insist upon reform. I put forward this paper as a contribution to the study, and, as I believe it to be true, hope that it may be convincing. The position has been further amplified in my books "Currency and Prices" and "Currency

and Employment." I have indicated some of the relations of currency to prices and employment, and suggest a graphic representation by which these relations can be more readily perceived.

The Plea of Honesty.

If I may still be heard and read I would like to add a word on the plea of common honesty. This is not a very interesting plea when it is applied to ourselves, but only when it is applied to some one else. All the same, if there is to be the full benefit from honesty there must be honesty all round, even including ourselves.

If a man undertakes to give one hundred baskets of fish, and a contract is made on that basis, if nothing sufficiently definite having been said in the contract about the quality of the fish, baskets of rotten fish are given, will this be said to be honest? Oh, it may be said, the contract should have been made so precise as to render that impossible. But suppose that was not possible, or that one party trusted to the honour of the other party, that the generally accepted or recognised quality would be given. The second party may try and justify himself by saying it was not possible to give the recognised quality—always some excuse will be sought, thus paying a dubious and rather valueless compliment to honesty; but this excuse can easily be shown to be false in the case of currency, and anyway in the domain of honesty is no excuse at all.

This dishonesty is exactly what Government has committed, with the added folly (and all dishonesty is folly which shows itself in one recoil of disaster or another) that Government, the largest purchaser in the nation, has raised all prices against itself. Surely this is incredible futility. The Treasury issued notes to facilitate their borrowing to pay their debts, and every note they issued raised their future expenses.

This reminds me of a practical joke I saw played upon a grain weigher in an Indian bazaar. The man was measuring out a heap of oats, and as each measure was put in a measure was ostentatiously taken out on the other side. For some time the dealer saw nothing, but all the bazaar looked on and laughed.

But a better illustration still I find in an engineer, who worked under me, whom I found taking earth from the base of an embankment to put it on the top—cutting away his foundation to get a little extra height. To such extremes can idiocy resort to make a specious show. And here let me distinguish; there is moral dishonesty and dishonesty in fact. The former is not generally attributed to an act done without dishonest intention, but only if as soon as the breach of the faith which has been implied or expressed is rectified as far as possible as soon as it is brought to the notice of the offender. In that position sits the Government to-day. It continues its folly. It maintains its dishonesty. Cynically, it makes no attempt to justify its

conduct. Parrot-like, it presumably echoes the cry, " It must have been," and calls in the war as the great pan-explanation when demonstrably the war connection was a coincident time connection, and not one of necessity, *i.e.*, it suggested, but did not require, the mishandling of currency. It would be nearly as relevant to call in man's existence or the existence of the world as the cause.

The hopeless imbecility of the position is evident to any one who will consider that this thing, currency, is not an ordinary piece of goods only, but something more by virtue that it is currency, and that exchange when it is made through the medium of currency differs very materially from exchange made direct, but always following the laws of exchange.

As to honesty, again it may be said it is not of the same degree of immorality if an unrighteous gain is made for another and not for oneself, and that the Treasury were acting for the nation and not for themselves. But shall we hold the draper's assistant who stretches the cloth he sells for his master as blameless? Perhaps the master is the more blameworthy if he realises what is being done, and the people of the nation are the masters in theory, if not always in fact, and they have not seen. We have to suffer for our ignorance and neglect and want of observation. We have not been able to see the train was moving, until it had run a good many miles. But now let us pull it up and take it back to its right line.

Deception.

And is this thimblerigging, this three card trick, more subtle indeed in that it is a deception of language, of the ear and of the sense and of the mind instead of the eye, is it to be allowed disastrously to succeed for ever? Are we never to see that it is wicked to call currency the same, and treat it as such, when it is not really so? Are these implied promises, which Government makes when it issues currency to be allowed to be repeated and repeated, multiplied and multiplied until so many are made that they cannot be redeemed? For an item of currency is not less a real promise because it cannot be enforced by law, and with this proviso that it is not a promise which when made in excess suddenly fails and breaks, but which breaks and fails gradually as it is unduly extended.

The Self-Protection of the Treasury Officials.

Before leaving this subject of honesty let it also be noticed that the Treasury have protected themselves from the consequences of their disastrous conduct in unduly multiplying currency by a wholly unauthorised raising of all their own salaries, a raising which they have cynically refused to all but a few of their pre-war fellow-workers, who are on salaries fixed at the pre-war value of currency, and have given little or nothing to pensioners even of their own service.

Cooks who have spoilt the cakes, they insist that they at least shall not go short. They will certainly not be in the least disturbed to think that by multiplying their own pay they inevitably make it necessary that many other fellow-workers must have their jobs shut down. Nor does their knowledge and experience apparently run to the recognition of the truth that abnormal pay almost invariably brings bad work, and judging of the grave complaints all round us (August, 1921), their efficiency would seem to be in inverse ratio to their pay. They certainly, however, can make claim that they understand exchange as it affects themselves.

However, they have not the last word. Let the masters speak out, as I feel very confident they will at the next election.

Inflation is Repudiation by Piecemeal.

Inflation is repudiation by piecemeal. This is as true as that a pot will empty if a hole is made in its bottom as surely as if it is upset. Government has incurred a debt in money of one value and gradually wipes it out by paying for it in money of less and less and always lesser value, and this policy finds support because there are a good many profiteers who will share the profit with Government, and come in for a large slice of unearned dishonest gain. And having done this great wrong Government and their fellow-profiteers say they must not undo it for repay-

ment would be so very costly and disastrous. Just so the gambler who has won a large stake says: "Now we must stop," and will only go on if he sees a certainty of winning (more inflation), and gives a lecture on the viciousness of gambling. Well, crime revenges itself, and the revenge of inflation is unemployment, and eventually revolution, and having to forgo all the goods which might have been produced—the services which might have been rendered—if a more intelligent and honest conduct had been adopted. The profiteers having made large profits refuse to go on at less, but in consequence are shut down in business, and how are they going to live?

Must be Honest all Round.

And one more word about honesty. Is it quite impossible to see only that the other man should keep faith and not to see that we must also do the same ourselves? The Chamber of Commerce very rightly condemned any transactions with Russia if it repudiated its debt, and did so in almost the very words I used some months before to the Bankers' Trust of New York when sending them my book on "Currency and Prices" in return for a currency book received from them. "*The welfare of the whole human race rests upon good faith and the restraint which is to be found in keeping one's word.* To alter the standard of value or to allow it to vary is sometimes to cause, and sometimes

to permit, a breach of faith over long-term contracts. To prevent this is of the utmost importance to mankind."

The Chamber used these words :—

(Extract from the *Morning Post,* 7th October, 1920: The Bargain with Lenin: Chambers of Commerce Demand.)

The Executive Council of the Association of the British Chambers of Commerce yesterday passed the following resolution, which was forwarded to the Prime Minister, the President of the Board of Trade, and the Foreign Office :—

> "That as the maintenance of good faith and the sanctity of contract are the bases of all human intercourse, whether commercial, political or social, the Council of the Association of British Chambers of Commerce respectfully inform His Majesty's Government that no agreement between the British Government and the Russian authorities can be supported by the representatives of British Commerce and Industry unless it provides for the recognition by Russia of all pre-war Russian debts, national municipal, and private."

Cannot our statesmen rise to a great measure of justice? Will they never gather wisdom and understanding and walk in the ways of God? God speaks to all people with no uncertain voice in the results of their conduct, and He has clearly spoken here. He has laid down great rules

of conduct which in the language of science are spoken of as the laws of nature founded on the results of experience, which never can be broken with impunity. In their consequences all things are proved. Justice and honour are His great sign manuals and for men the maintenance of their word unbroken. Never to deceive or cheat or do to others what we would not have them do to us. Deliberate depreciation of the currency when it is known and understood is clearly cheating.

History.

If this is not already too long, a word may be added to show how the world has come into the position it occupies to-day, and how the common fallacy of exchange has arisen. In the beginning C had to be a thing of intrinsic value, *i.e.*, an article having value apart from its value as C. Currency had to cover itself with the sheepskin clothing of intrinsic value. In no other way could it enter into the exchange fold. Nothing else could possibly come into C. A thing of no value in itself would clearly have been accepted by no one, and it could not possibly have been made a measure of value. Can a yard measure be imagined without length? No more could value be measured by what is of no value. But gradually as the valuable article used for C became more and more widely used for this purpose, as men more and more accepted it as C it took on a new value, a currency value, by the very fact of its being so accepted. The currency

value then swallowed up and absorbed and rendered of little account all other values and became the ruling partner. The universal exchangeability within its own country of any currency gives it a new value which swallows up and replaces its old value as a commodity having another use. Prices being expressed in terms of C (the currency unit), all prices had to conform to the value of C. And this is equally true whether the currency is of gold or any other commodity, or no commodity at all, but only a bit of paper, or is paper and gold combined. Aaron's rod has swallowed up all the other rods. And so there comes about the possibility of a purely token currency, dependent for value on its universal acceptance and the relation which its quantity (supply) bears to the work it has to do in effecting exchanges (the demand for it in exchanges). So there is seen a note—an intrinsically worthless bit of paper, not good even to wipe the floor with—has a high value for the purpose of exchange. Currency is to-day of value because it is accepted. In the beginning it was accepted because it was of value. From currency it is impossible at the present day to escape. It cannot be refused even when multiplied in excess. Without it in the present day the world cannot live. It is to be likened to the man in Æsop's fable of the stag and horse. The horse called in man to help him fight the stag for the grazing and ever since has been man's slave. So man has now become the

slave of currency which he called in to help him make exchanges. It is impossible to escape from the mastery or tyranny, if so it must be called, of currency to-day, but this master, if well handled, can be made as kindly and helpful as he is necessary.

The immense disturbance and suffering caused by the great influx of gold following on the discovery of America must not be forgotten. These have not received proper attention, nor has adequate warning been taken from them. And now if the inexorable connection between demand and supply in exchange is fully grasped it will be seen that this great last war, with its withdrawal of gold from the currencies of Europe, has had a similar effect, and could, and can, have no other effect, on exchange than an immense new discovery of gold. That is the economic law, and is as certain as that two and two make four, or any other mathematical equation, and this the graphic representation clearly shows; or as certain as that in a balance to add weight on one side or to take off weight on the other will have an equivalent effect. It can be said, and truly said, that gold is always gold, and then it will be said its value must always be the same. But this is not so in exchange; all commodities, and gold among them, vary in value in exchange governed by the law of supply and demand, which, as I have shown above, is a reflection or consequence of the relative quantities of the articles put up in an exchange. But if currency, or an article greatly used in

currency varies, it correspondingly varies average prices. This is because currency is used in exchange to buy and to sell, and not to buy only. An ordinary (not currency) commodity is usually bought to hold, and even if exchanged through a few hands soon comes to rest. But not so currency; and this explains the enormously greater effect on prices of multiplication of an article which is currency and one which is not. It also explains why a falling off of the demand for currency in exchange raises prices, and is equivalent to an increase of supply. As a consequence of the withdrawal of gold from use as currency in Europe, its value in exchange has greatly fallen, there is so much more in comparison with the exchange work it has to do. In their home exchanges the token currency countries of Europe do not use gold to-day, nor where they are forbidden to export gold can they use it in their foreign exchanges.

And why is it that so many people do not see the truth? Because of the deception due to the appearances of things. Currency is clearly a good thing, and all would like to have a bit more of it, and think they cannot have too much of a good thing. But can they not? Surely it is more true to say they always can. As to currency, we may think we cannot have too much in our pockets, but we may be sure there can be too much in the country. Are not our Governments like children playing at make-believe, when they insist that a watered currency shall be treated as unwatered?

Confusion of Thought.

One word as to confusion of thought. A great confusion arises from turning over in an exchange argument from goods and services to currency, or *vice versa*. A sound argument can be framed about exchange of goods or about exchange of currency. When speaking of exchange of goods for currency, the argument all through must follow either goods or currency. For exchange is itself—it is a turn over—and if the argument is also turned over, then it is like the children's game, you are blindfolded and turned twice round and then where are you? I am reminded of a man who had been boasting about his hunting, and when he left the room some one said, "Can the man ride at all?" and the answer came, "I don't think he has ever been upon a horse, but he ought to know something about riding, for all his life he has been ridden by his wife."

The financiers and the currency writers will often tell us that the £1 note is appreciating when really it is gold which has depreciated. Like a man who told me the other day I could avoid a steep hill by turning to the left, and was astonished that I wanted to know which way he was going when he turned to the left. Currency is the medium only, and not the goods themselves. It is as the shadow to the substance. If a man leans upon the shadow it will not support him. Nor can the substance grow as quickly as the

shadow can be lengthened. Or like the balance of the see-saw, the child must keep to his own end of the beam or occupy a suitably different position on the other beam.

Inflation Inimical to Democracy.

Now a word upon democracy. This country of ours claims to be a democratic country. It claims that its Government, created by itself, should act for its welfare, for the welfare of one and all, for the welfare of the great masses, in and through the welfare of each individual member of the nation. There can be nothing more undemocratic, nothing more hostile to the welfare of the nation as a whole and of each individual in particular, than this repeated and continued destruction of contracts which inflation does and always will involve. The welfare and prosperity of the nation and the individual depends on general low prices, which means as great as possible a diffusion of goods and services to enjoy, and is inimical to high general prices which restrict goods to the enjoyment of the few. When nations unduly multiply their currencies goods go to the rich and are taken from and denied to the poor.

To multiply currency unduly is to exploit labour and to rob the poor and helpless and those who are unable to defend themselves. As real labour says, " Money is no longer what it was." No more than is good beer like the watered beer

of war time. There you have the complete summing up of the position.

And if it is asked how labour is exploited, inflation as it progresses extorts more and more labour for less money relatively or proportionally, and this it does inevitably from the inexorable conditions of exchange through a medium.

Some Consequences of Deflation.

What are the consequences of deflation which are so much dreaded ? It is urged that to deflate—to reconstitute the currency—is to make a gift to many who may have won their money as profiteers, and at any rate to people who have lent their money when it was less valuable and have done nothing to earn such bounty, and that to give it to them is unjust to the taxpayer. But first of all no more money is being given than was promised, and the strict maintenance of the promised word, rigid adherence to it—honour and integrity—are of the essence of all human welfare, and for the Government of a mighty nation to commit a great breach of honour would be a most disastrous measure and more destructive of human welfare than can be very well conceived. A bargain is always a bargain. If it may be broken when it is unprofitable, what claim can be put forward against any who may break their word ? The world reverts to primitive ferocity. Surely Germany must now be realising the disaster of its broken promise to herself, and

that disaster does not fall only on the rest of the world.

And then the reward or bounty given is not given to profiteering but to saving. The profit of profiteering came when the money was made, when the unearned gain was taken. If that money has been spent and enjoyed, it is gone, and there will be no bounty for that man. It is the man who has saved and invested his saving who will profit. And under modern conditions saving and investing money is of great benefit to the nation, *i.e.*, to all the people. It is a thing apart from how the money came. In not spending it directly on himself but putting it to productive use, the profiteer who so acts is partially redeeming his fault. And all who save, *i.e.*, do not spend directly on their own enjoyment, are doing an act so greatly useful to mankind, more particularly when stocks are denuded, that an additional unexpected benefit need not be grudged. And indeed it may well be that the prospect of the enhanced value of money was one of the motives of the saving, just as pigs are bought if pigs are expected to rise in value. A little extra encouragement to saving will not be out of the way.

The fatal effect of a continually falling value of currency is that it must destroy saving when it is felt that it is better to spend money at once before it is lost. But without saving industry cannot go on to-day. Saving is necessary, not only that wealth may accumulate and increase, but that it

may even be maintained and the world may live. The seed corn must be saved if it is to be sown.

And then, again, Government no more than anyone else cannot play the game of "Heads I win and tails you lose." How disastrous such an attempt may be can be seen in the present dearth of houses, due principally to taxing the so-called unearned increment of land which has meant that the man who made a profit on a building scheme had it taken away, but his losses were all his own.

The Justice of Deflation.

Now turn to another side of the question, to the poor who have been robbed—yes, robbed just as surely and certainly as if some one had stood over them with a gun, though so far as the act had no such intention, but was the result of ignorance and incapacity, there was not the same moral offence by the wrongdoer. Those who have been made altogether destitute, who to live have had to spend all their small capital savings and have no money left, for these, alas! the tardy restoration will do little or nothing. But for the immense numbers greatly impoverished by the currency mismanagement some long-delayed reparation will be made. For this class it is no mere bounty we must consider, but a long-called-for measure of the merest justice. And this mere measure of justice will have, as justice always has, a most beneficent effect. It will give a great opening for further production—for what

is the use of production at such high prices that the goods will not be sold?—and this will give incomes and employment and goods for the many to enjoy.

The nation is just as much called upon to make redress to those of its members whom it has unrighteously or unwittingly destroyed as a doctor of medicine would be who found he had made a mistake in his treatment of a patient he had mishandled. To such a patient any right-minded doctor would give double care and attention and devotion until he had righted the mischief he had done.

If a hen-roost has been robbed, the eggs must be made good, even if their price is a bit higher, and so also if they have accidentally or unwittingly been broken. It is quite beside the point to raise the plea that unmerited favours are conferred on some one who has eggs. It really means that any excuse will be made to escape an obvious duty.

Further Consequences of Deflation.

Then as to the losses anticipated by consequence of deflation. These losses have for the most part already been incurred, and they are to be seen all around. If there is no reduction of currency the lower prices will not remain, but prices will rise again as stocks become exhausted. In the renewal of stocks care will be taken as far as possible only to produce so much as can be sold at these higher prices, and this will be a much smaller quantity than could be sold at

lower prices, and hence employment will be less than otherwise it might be. But notwithstanding all the care it will be found that goods have been produced in excess of the amount which can be sold at the price, and then again there will be a holding out for higher prices, and then a slump and prices fall, and losses result. Little or no permanent progress will have been made in lowering prices. These fluctuations will be more violent when currency is unduly multiplied. For a multiplication of currency raises all prices. With currency put and kept at a suitable low quantity many, if not most, goods will settle down to an average demand at the price which the quantity of goods produced will determine, and comparatively few goods will vary very largely owing to increased or diminished production due to special causes affecting them only or principally. And there is all the difference between a few things varying in price and all things varying, the latter producing a much greater violence of fluctuation, since if all goods and services rise in price, while incomes do not rise, proportionally, and many incomes do not rise at all, purchasing is closed down more summarily than if only a few rise.

It has been wrongly assumed that the cloth could be stretched (currency unduly increased) to make it go further, and now that the mistake has been found out this idea must be given up and the expense incurred of renewing the cloth which has been spoilt.

We have manifestly gone down a very steep hill. There is no short-cut to get back except the way we came.

Analysis shows that inflation, causing a rise in prices, throws an unearned, unrighteous gain upon those in possession of the stocks of goods for sale at the moment of the rise. These are relatively few compared to the whole population, and the mass lose while the few gain. While there is no immediate gain or loss of *goods* on the whole there is a most destructive and cruel transfer. Indirectly also, by the great uncertainty created, prices having lost their sheet-anchor, very great loss results from such conduct. This when there is inflation. In renovation of the currency the case is altogether different. Even the profiteers do not lose, but gain, if they have saved and not spent their profits.

Those who have lost on recent sales will be able to purchase at lower rates and so to sell in future at the lower prices. And so they will be able to carry on business which otherwise will not come to them at all.

To change the value of currency, it may be said even by going back will add further uncertainty. True, though if due notice is given of the intention most of the uncertainty will be removed. It will be strictly limited and not indefinite in scope, as is inflation.

It is extremely unlikely that the movement of redintegration of currency will be too rapid in any country. It would be pulled up at once by

financial stringency. I admit fully that any attempt to unduly hurry would be disastrous. But if every country is moving towards deflation, the uncertainty now prevailing will be greatly diminished, and every country, will in reality, on the whole, profit, *i.e.*, will gain on balance in respect of certainty of contracts, just because it is certain that the means of climbing up can only be gradual and steady, whereas the other course, of inflation or going down, may be very precipitate and irregular.

A Criticism Replied to.

Mr. McKenna, in reply to my counsel of *regulated* and *steady* deflation in my " Currency and Employment " book, warns financiers against a *too speedy* deflation. Herein it is seen we are *in agreement.* But he argues that I have overlooked credit money. This is curious, for the recognition of the distinction between the material legal currency and the representative or derivative money, which is credit, is the mainstay of my argument (p. 19 onwards, of "Currency and Employment "). On the basis of the actual material legal currency a very large and variable superstructure of derivative money is built up. A banker or other person, when he gives credit or a loan, either hands over, or promises to hand over on demand, a certain amount of legal currency. This he buys, and if the currency he can buy is short, he pays more for it, paying usually in promises of paying interest. The amount of

currency which can be obtained by the banker will vary with the interest he is willing to pay. It is thus essentially limited so long as the currency is limited. But if the stock of currency upon which the banker is operating is increased, clearly a new and extended limitation is created. Large, then, as is the fluctuation of the demand for currency as shown by the interest people are willing to pay, there is an essential limitation fixed by the quantity of the currency in existence. And my essential proposition is that the *value* of currency depends upon the relation of the supply to the demand for exchanges. This follows the law which governs the value of every commodity. Currency is a very special kind of commodity. The demand for currency is for exchanges, and must vary with the relation of its supply to the exchanges it has to make. In the infinite variety of prices even for the same article how, it may be asked, is it to be ascertained what the true value is? This is done by taking an average. If the average is found to vary while the quantity of currency remains the same it must be due either to there being more exchanges to make, in which case with the same amount of money available less can be given for each and prices fall, or to more being put in on the average to each exchange, and that is a rise of price. We thus find that the amount of legal currency does rule the roost. At any time and place and under the actual conditions of law and custom there existing, there will be very definite

limitations of the total amount of money which can be created out of a given amount of currency wherewith to perform all the exchanges of the day. But increase or decrease the currency, and new limitations are set up. This is explained in my first book, "Currency and Prices," p. 14.

The Great Danger and Sure Disaster of Continuous Inflation.

The great danger of continuous inflation such as is to be seen in Germany can hardly be in doubt, and if continued must surely lead to ultimate disaster. Disaster is delayed by the good discipline of the workman, but labour will not always submit to be exploited. For even if labour is getting more in money, it is continually getting less and less in goods, and this cannot always continue. (*See* Appendix F.)

Gain of Foreign Market by Means of Inflation goes *pari passu* with Loss in the Home Market.

Again, the gain in getting a foreign market as a result of inflation is only a relative gain, since it is obtained at the expense of raising the home prices in the same goods. Rather it should be said the same measure—inflation—produces both effects simultaneously. Clearly, then, the time must come when on this count alone more must be lost than gained, the home country

being exploited to the benefit of the foreigner and the loss of the home country.

And again, if it be said that deflation must be accompanied by readjustment of wages, it is seen that the same is true of inflation. Readjustment of wages must have place in any case, and it should take place under the condition of a redintegration of currency without which purchase of goods and employment of labour are grievously hampered.

The Psychological Argument for Inflation Considered.

It has been argued that, psychologically, continuously rising prices are an encouragement to industry. The fallacy of this argument is to be found in the fact that there cannot be any real gain from a *general* rise of prices such as is caused by inflation of the currency. Real gain can only occur where a particular industry raises its prices as against other industries, and then the gain is at their expense. (*See* Appendix A.) So though labour may be temporarily deceived and think it is gaining, it is very soon undeceived by the facts. Such a stimulus is like that of fastening a carrot in front of a donkey. Will it really help? Is it not the fact that when the donkey finds he cannot get the carrot he gives it up, and perhaps also gives up pulling at all in disgust at ill-treatment and illusion. And if labour finds that, notwithstanding all its increased exertions, it is not

getting any real return, because its apparent gains are all swallowed up as they are under continuing inflation, surely there is likely to be trouble. And, as I have elsewhere said, so long as in this country bank notes are let in under cover of gold without any corresponding reduction of fiduciary notes (legal currency), this is always liable to happen. The influence of the increase of currency may be greater than the influence of increased production and consequent increased exchange transactions.

Method of Deflation and Currency Control.

It may be pointed out that the principal and normal instrument of the control of currency is by the rate of interest. It is only when this fails to act that actual withdrawal of currency (or under certain circumstances its increase) becomes necessary. One mistake of the Treasury has been that while they had to increase currency to meet additional demands for it in exchange, they mistook temporary demands for permanent demands and took no measures to reduce the supply when these temporary demands ceased. The consequence has been that the excess currency not being withdrawn, either automatically by being loaned for short periods or by direct purchases, went into prices.

The Possibility of Deflation.

As to the possibility of deflation, it will depend first of all on satisfactorily establishing that it is

really necessary. My endeavour above has been to show that to do so will be right and just and that the evil consequences which it is feared will result are temporary and must be faced. They will be counter-balanced by more than corresponding advantages. In the end I maintain that it will make for steady and permanent employment and do justice to many who have been so severely hit by inflation. So soon as currency is withdrawn at once it is said: "Money is being made more difficult to obtain just when it is obviously necessary to put more money into industries and get ahead with production." To this the answer is: Yes, that is so in a measure, but if you do not make money dear it will not be put forward and lent to industries in such quantity as is required. It is the making money dearer which brings it forward. This must, obviously, not be carried too far or too fast, or bankers will not be able to meet their obligations and a panic will ensue—but the high rate of interest may have to be continued for some time longer. New borrowers for renewal of the stocks of goods will have to take account of this high rate and their other expenses of production must be reduced or increased production stimulated, or both. But at the moment more important than production is sale of what is produced, and this can only happen if prices are held down all round, which will happen if less currency is available for exchanges.

Prices have been forced down because it was

necessary to secure a sale and obtain money to repay bankers and others—the outlay in obtaining the stocks having to be recovered. Unless C is reduced this I maintain will for the most part be a temporary fall, as under the inexorable conditions of exchange through a medium, if the ratio of the quantity of the medium to the exchanges it has to make remains the same, average prices must remain the same. There will, therefore, be a swing back again to very nearly the same average prices, only a few things in which improvement in production occurs falling in price, while others will rise.

Analysis shows that there are exchanges and exchanges, exchanges of goods the common people want, and of goods only the few people who have got a lot of money want. The latter are made up partly of the common goods with something exclusive or distinguished added to them, *i.e.*, sold perhaps in exclusive places or new goods altogether. The new rich profiteer cannot eat more than a limited amount of bread and butter, and must put his money either into new goods or luxury goods which will be produced to meet his wants, or he will put it into industry and investment, thereby tending to pull down the rate of interest. His money, if it goes into the industries producing common goods, will help to produce them in greater quantities and this cheapens them and so their lower price can be maintained. The producer having to pay more for his advances must reduce his other expenses, and so

will endeavour to hold down the present fall of price in all the things he buys in order to produce. The relatively poor, then, may get the goods they need cheaper, and the relatively rich spend their new money on luxuries or expensive new goods. But all throughout the average of prices will only be reduced if currency is withdrawn.

Again, there will be seen many new rich dissipating their money in extravagances and exciting jealousy by their display. So far as this class put their money into expenditure for the good of the community, the community will recover some of its loss, but perhaps this is too much to expect on any great scale. At present the new rich do not by a long way make up what those from whom their money has been taken—the new poor—used to pay in charity.

To give the rich their due, *all* their luxury expenditure is not wasted. Nearly all our advances in the amenities of life have been made by the expenditure of the rich who could afford to pay for experiments. No public or Government Department accountable to public opinion would have faced the risk of loss they ran. But the rich could afford such risk.

Prices, it is well to note, have not been forced down by any reduction of currency, for there has been no such reduction. Having come down they can be held down by reduction, and as average prices are held down lower it is quite possible to carry on exchanges with a smaller

quantity of currency. As lower prices establish themselves under the inexorable condition of less currency to make them with, a new adjustment takes place at this lower level of prices, and, again, the high price of money (interest) will ease off. And then, again, if the average pitch of prices is still not sufficiently low another withdrawal must take place probably under similar conditions.

A reduction of the currency can be used to *force* down as well as to hold down average prices, and this may possibly be at some stage necessary, but it is not likely to occur and might be a difficult and doubtful process. It is better if possible to take advantage of the fall of prices which has been forced by compulsory sales as explained. This is so because the latter is a natural force which cannot be resisted, whereas an artificial restriction of currency will be strongly opposed by those who want higher prices. When, however, currency is understood the action of the Currency Commissioners to keep currency at a suitable value will be accepted.

Just as it is found that with inflation prices of goods rise more quickly and largely than wages and income, so with deflation it will be found that prices fall more quickly than wages and income up to a point, probably somewhere between the present and pre-war prices. I should judge that the fall of prices to pre-war level will be continually slower and slower. Though wages and incomes will be reduced, the loss will not be

a dead loss, but only temporary, and eventually, if not immediately, compensated by lower prices. This may seem a hard lesson to those whose incomes fall, but if the fall is universal—by the reduction of currency—the loss will be nominal and up to a point will, indeed, be compensated by ability to buy a greater quantity of goods, This is the apparent *paradox* of exchange through a medium.

Reduction of C will be the only adequate means of holding down prices and reducing them *in any short time.* Reduction of the medium of exchange is bound to act smoothly and regularly, because it cannot but be slow. Increasing the produce is of course necessary to a fall of price, but alone it will only act irregularly and slowly, because it is limited by the fact that increased production will be of things class by class and will only act slowly upon general prices. The quantity of the medium acts directly on all prices, but only indirectly and after much conflict on the majority of incomes, *i.e.*, if we except the few who are in a position to be profiteers. We are bound, therefore, if we are to get back smoothly and regularly (*i.e.*, without great slumps and temporary booms) to reduce the quantity of the medium gradually and as opportunity offers.

The rapidity of prices falling back to pre-war rates will, however, be increased if there is a fall on both sides of the equation, *i.e.*, an increase of the goods and a falling off of the quantity of the medium of exchange. In practical politics

currency can be withdrawn with the easing of money which results from the large repayment of loans rendered possible by the compulsory fall of prices. My contention, then, is that as a useful and possible measure, instead of reducing the Bank rate of interest in England recently, currency notes should have been withdrawn.

Behind the whole controversy lies this condition.

Cheap money means dear goods and *vice versa*. This maxim, well understood, justifies the course of deflation I urge should be pursued. And here a statesman's consideration comes in. According as a man wishes to exchange goods or money he will wish for inflation or deflation. It will be the business of the statesman to lean neither to the one side nor the other, but to keep the balance even, and where he has unduly leant one way he must so far as he can remedy this fault.

It may be said, what is the good of telling us all this unless you can not only propose a remedy but show in all detail how it is going to be carried out. The details must vary in every country and be governed by the conditions of that country and its currency and the general management of its currency; but the general principle will always be the same. The principle is all that it is useful to expound at this stage. Once admit the principle and conduct can be guided to correspond and to bring out the result desired. In every country there are notes which are legal currency, and it is on these that Government can most easily operate, increasing or

restricting their amount. But currency in all its forms must be controlled, and so when notes are issued against gold, as are the Bank of England notes, and notes again are issued independently by the Treasury, as are the fiduciary legal currency notes, as the former are issued the latter must be withdrawn or there is a multiplication of currency (to the extent to which the Bank notes replace, *i.e.*, do the work of—meet the demand for—currency notes). That is one application of the principle and many more arising out of the circumstances of every country can and will arise and must be dealt with. But if they are dealt with then the currency as the standard of measure of value can be raised to its suitable pitch, and by the guiding help of the index number used as a valometer be maintained practically constant to the incalculable benefit of mankind.

The Remedy.

And now what is the remedy ? First to recognise that supply of currency alone cannot give the answer. There must also be a consideration of demand. Both supply and demand are human incidents, dependable upon the whim of man, than which possibly nothing in the world is more mutable. Where then shall we look for fixity or guidance in this ever-dimpling sea ? It is to be found in looking at the result. If there are many movements we must take an average. This average is to be found in the index number

which Sauerbeck was among the first to work out. It is an average of average prices—a sublimated average—and it is the obverse of the medal of which the value of currency is the frontal or direct view. Coming in in this way at the end, it is the resultant of all the forces acting in and upon prices. Production, saving, expenditure, confiscation or taxation, Government's incalculable restrictions—all known and all unknown forces find their place in the result. With the power Governments possess of controlling the supply of currency they can with this index number to guide them maintain the several standards of value in their several countries at an approximately constant value. Slight variations lasting over short periods there will no doubt always be. But quickly as our valometer, the general index number, points it out every change in value can be met by counteraction, and no great variation need, as far as can at present be seen, be permitted or need ever long remain. I say as far as can at present be seen, for no doubt the wit of man will in due course find out many inventions. At present we can take shelter under the wing of that great force, in which confidence is ever growing, expressed by "the safety of numbers." *The guiding principle must be that on the value of currency its whole management must turn.* Value must determine prices and not prices determine the value of currency. Still less should each drive up the other alternately, as it has been with us.

The idea first put forward by our war-time currency conference, and accepted by the Treasury, that currency must be increased to meet the liabilities of the bankers—not, be it observed, as the multiplication or reduction of exchanges might from time to time require—is repeated in the parrot-cry that currency *must* be increased whenever more money is required by the bankers or the Government. If that is so how do the gold currency countries run their show? In them currency only increases as gold depreciates, but gold runs on its own and does not wait for man to raise or lower it. Gold discoveries are outside man's control. Gold can and does drag currency in the gold currency countries where it will, and so can man drag currency where he will by restricting or increasing its amount—not, of course, without results, good or bad. If man uses this power to keep currency at the value that is best when he has put it there, his action will be wholly good.

Governments which need money must borrow in the only honest way, openly in the market by paying interest and not through the destruction of the currency, the most ruinous, unjust and destructive method possible.

Currency has in every country been multiplied unduly, *i.e.*, beyond the demand for it for exchanges, with consequent disastrous result to vast numbers of people, many times more numerous than those who have gained. Exchange through the medium of currency,

foreign exchange as well as home exchange, has been completely unsettled. The remedy is to go back the way we came. Sometimes it is better to go back by a different way, and I confess to a partiality for that course. But if the only other way which can be found is interminably long it is foolish to insist on going such a way. And the progress must not be that of the squirrel on his wheel, galloping forward and always remaining where he is. Such would be the lowering of general prices by production, only to raise them again with more currency. To come to grips with the problem, it does appear that by multiplying the products—the extreme items A and B in the equation—recovery is possible, but how long a time must be taken for this, even if there is no hindrance, but all the time prices are holding back production, and prices are a product of currency? There is the machine choking itself and refusing to move except only on its own conditions. And the condition is that currency must be reduced. This and other features of the case are explained in my book "Currency and Employment." In that book I have pictured prices oscillating round an average as children dancing round a maypole, and as the pole is raised the ribbons the children hold must be made longer, or the children must grow taller if they are to hold on to the ribbons. Which will be the quicker or the easier remedy—to pull back the pole or wait until the children grow taller?

The Brussels Conference, in the denunciation

of further inflation, were entirely sound as far as they go. A study of exchange through a medium clearly shows that a rise of prices due to an increase of the medium (currency) in excess of the demand of it for exchanges must inevitably raise average prices. The same inexorable rule will also be found to act in the reverse way, viz., that without reduction of the supply when it is in excess of the demand there can be no permanent fall in average prices. But it will be said, "Oh, yes, increased production of goods will reduce their price." The answer is, "Yes, increased production increases the demand of currency for exchange, by increasing the goods put up for exchange." And the particular goods increased will also be reduced in price. The graphic representation makes this clear—makes it clear also that the increased demand for currency is the increase of exchanges. But since currency is used again and again in exchange an enormous amount of increased production will be needed to balance a very small increase of the quantity of currency. Not to pull down currency which has been recklessly increased leaves a hopelessly impossible task of piling up production. And more, since sale is always at a price, the high price due to the existing abnormal quantity of currency (far above what was required for exchanges at pre-war prices) holds up sales and stops down production.

Then the logical necessity is that as prices were raised by inflation, they must be lowered by

deflation. Any other way is hopelessly long and impossible, but the road is full of dangers and difficulties and must be travelled very carefully. In time the Brussels limitation of inflation would give a good result, but very slowly, and by a turning round of prices, necessities cheapening and luxuries becoming dearer, not by any very considerable or rapid general fall of prices. But "man does not live by bread alone" and he resents having his luxuries made dearer, as well as he resents his bread being dearer. Even if bread falls below its pre-war prices he will resent other goods he wants being dearer. He will also hanker after the new goods he sees others enjoying.

As a preliminary counsel—short of a counsel of perfection—the Brussels Conference may have been advising cautiously, not to frighten people by too big a demand all at once. And indeed if their counsel had been followed much would have been gained. But I know of no country in which in spite of—or perhaps sometimes because of—falling prices there has not been further inflation. More gold has gone over to the gold currency countries and in the token currency countries more currency has been created. In England, notwithstanding the statutory inhibition to increase the fiduciary notes, bank notes of small amounts, which clearly take the place of fiduciary notes in a measure, have been largely increased. That the bank notes are covered by gold instead of by the nation's credit, as are fiduciary notes,

in no way militates against their effect, such as it may be, as the equivalent of an increase of currency. All sorts of influences and forces are at work affecting prices. I am only considering the influence of currency and pointing out its inevitable influence. If people won't produce, clearly there can be no exchange of products. If people won't exchange products again clearly *cadit quæstio* and they cannot live. If they won't consume it does not appear to be much use producing—no sales, no production. And also if Government interferes and forbids certain exchanges (sales) except at a price which one or other party to the exchange will not accept, that business closes down.

The whole question of exchange through the medium of currency is admittedly difficult, and the effects of new conditions arising out of the extraordinary multiplication of currency have to be watched and considered. What I have said will, I hope, help to the formation of sound views and the adoption of a correct policy in the handling of the currency.

To conclude, all the nations of the world are suffering from a plethora of currency and their wisest and quickest method of recovery is to go through a process of

REDEMPTION.

Appendices

APPENDIX A.

It is well to consider somewhat further certain of the relations (conditions and consequences) of exchange in addition to those already mentioned.

I deal first with direct exchanges. I would draw attention to the relations which arise when there is a decrease of what is given, and then of an increase of what is given. And first as to the former.

$$pA \propto qB$$

represents every exchange.

If p having been for some time unaltered is reduced, while q remains constant, it is clear that the person holding A gets an advantage and the person holding B bears a loss, *i.e.*, if the exchange goes through. But party B may not agree. Then party A can do no business if the exchange is to be the voluntary act of both parties. Also B does no business with A. Both parties suffer each according to the degree of their necessity. This is obviously a most important consideration. Both may starve if each has something absolutely necessary to the other.

But next suppose B accepts, then A enjoys the same amount of B at a lessened sacrifice. B on the other hand must receive a less amount of A, or, if he is to get the same amount, must make a greater sacrifice of goods or services. Which will B do, accept less or work more and get the same amount?

If B accepts less and gives the same amount of B then A will not gain in goods, but only in saving of labour and unemployment may follow to the men of his trade. If B works harder, he may be overworked. Again, A may find himself with much of his goods unsold and that if he is to sell his goods at all or a large part of them he must reduce. Two influences compel him to reduce, (A) the competition of other

sellers no one of whom wishes to be left with his goods unsold; and (B) the necessity of repaying his loans from his banker—recovering the cost of production. Here we see that A and B will probably both get less goods to enjoy, and together *must* get less however unequally the loss is divided. And this gives the answer to "Ca' canny." It must end in disaster if practised generally. It can only be successful to the party privileged to practise it exclusively.

Or again, B having got the lead from A to give less may enter on a race with him as to giving less. This is not quite the same as the case of proportional reduction, but is an exaggerated case. Here there is clearly a precipitated consequence; both are denuded of goods and enjoyments at a greater rate.

And now let us turn to p increased and q increased. As far as prices go, if the increase is proportional the prices will remain the same, and this case so far corresponds to p and q both decreasing proportionally. But the equation or representation of exchange

$$pA \infty qB$$

shows that if both A and B increase and are exchanged clearly there must be a greater mutual production and enjoyment of the goods A and B. There must be more to enjoy. No doubt also, unless the increases of A and B are got without extra labour by more effective and scientific working, there will be more labour. The difference from the aspect of mutual increase to that of mutual decrease given above is enormous. There is fuller employment and fuller enjoyment. This affords a notable example of things which remain the same in one aspect, price, but change enormously in other aspects, enjoyment and employment, and should awaken us to the danger of jumping to the conclusion without adequate examination that this is not so in any other case which may come under consideration.

And now take p increased and q constant. Here B makes a gain. A makes no loss of goods to enjoy, but he has to work harder or get a more fruitful result from his labour if he is to get as much of B. This he may or may not be willing or able to do. There will certainly be a limit to his willingness and ability.

And finally consider p increased and q decreased. This is the reverse of p decreased and q increased. These two cases correspond so far that they are similar but they are viewed from a different personal point of view, and as the argument treats the matter impersonally, only one of these cases need be considered.

The above would appear to sum up all the permutations with which we are concerned, but one other may be put which occurs in actual life, and is different in some aspects though conforming with a case above given in other aspects. A may give the same or even less, but insist on having more from B. This apparently agrees with my first case and in its principal aspect of loss to B and gain to A it does so. But the loss to B is somewhat camouflaged. It is not immediately apparent, because in this case it is not quite clear who B is. But it must be that in a transfer there cannot be loss without gain or gain without loss. And so when the miners insisted on higher wages and went on strike they failed to consider duly what was the cause of B's refusal. Some people still seem to think the miners might have won if the other Unions had stood by them and gone on strike as well, and a better time had been chosen to fight. The issue was, whether there was any B to take, and if not, a victory of the miners granting them a higher wage would have been a barren victory. Granted there was no more B after than before the wage concession was given, only the same amount of money could have gone to the miners as before, and if it went over at all and was not held up by higher prices, so that B was really reduced in amount, it could only have

meant that some miners would have got more and the rest been thrown out of employment. As these things actually work sales must have been held up by the high prices necessitated and there would have been little or no employment until they fell and sales continued. The device of paying a bonus from the taxes is like the definition of a lie, " a very present help in trouble "—quite indeed Coalition Government—but quite impossible of continuance as a permanency.

If, however, there had been the money (B in the case put) and some one else than labour was taking an undue amount, a strike might have been effective, unless this person preferred to go down in ruin and lose all to surrendering only a part. The labour leaders tried to bluff that they would, if necessary, lose all rather than withdraw. But common sense prevailed. And out of all this the lesson comes that all this destructive war of wages might have been avoided and the matter settled with the accountants in debate.

The above analysis states nothing new, but puts in perhaps its simplest form some of the inevitable relations of exchange, all of which must be taken into consideration in their appropriate places.

And now will the case be different if the exchanges are made through a medium, as they invariably are in an industrial country, instead of direct ?

The indirect exchange may be represented by

$$pA \infty rC \infty qB$$

Here, as I have pointed out, there is a double exchange and double inversion. Provided C remains constant in value during the process of the exchange from A to B the direct exchange and the exchange through the medium C give the same result. Otherwise, and often, there is much time between the exchange of A for B, ample time to allow great changes in C, there must necessarily be a disappoint-

ment corresponding to the amount and direction of any change of value of C.

Another way of saying the same thing is to say that as values are expressed from day to day in terms of C, any change in the value of C must involve change in expression with consequent disagreement of the result with the expressed expectation or contract, with disappointment and uncertainty if there is no possibility of calculating the direction and amount of the movement of C.

APPENDIX B.

It may be asked what should be the determining principle in fixing the pitch of prices, the average price. I believe that this will settle itself and that the guide ultimately will be that of average unemployment. In any industry special circumstances affecting that industry may cause very considerable unemployment which may be removed if those unfavourable conditions can be changed. But as regards the influence of currency and its bearing upon all prices, it will, I think, be found that as deflation progresses a point will be reached when in the general and on the average more is lost on unemployment than is gained by lowering prices. At present we are very heavily weighted by excess currency. There are two balancing considerations, too high prices stop or check purchases, and too low prices stop or check production. For exchanges to be made there must obviously be goods to exchange—production—and a willingness to exchange—purchase. It must be a matter of observation which is the cause which is at work.

APPENDIX C.

In every problem, but more especially in problems of any intricacy, it is before all things necessary to reduce the problem to its simplest terms. It is this which I have endeavoured to do in the problem of

the currency which I have set out to study. I reduce the problem so that it may be expressed by the mathematical expressions,

for direct, *i.e.*, all exchange,

$$pA \infty qB$$

for exchange through the medium of money,

$$pA \infty rC \infty qB$$

for foreign exchange,

$$pA \infty r_1C_1 \infty r_2C_2 \text{ \&c. } \infty qB$$

where ∞ stands for exchanges for, and A and B are any goods or services, p and q their multiples, and

C the unit of currency, and r its multiple.	C_1, C_2 &c., the units of separate countries, and r_1, r_2 their multiples respectively.

I should like to carry the simplification still further, and for goods and services substitute services alone, classifying all goods as embodied services. This to many may seem fanciful and foolish, and of use only to shorten the expression "goods and services." But that is not what I intend and can secure. All do in fact live and have their being by exchange of services, only it is not always seen what are the services rendered. But notwithstanding services are always rendered. To keep this fact clearly in view brings out the essentially simple issue of exchange, that it is of services, and that all exchanges are ultimately of this nature. And goods are embodied services so far as exchange purposes are considered. Nothing is of value in exchange into which no service has been put. Air is free to all so long as no service has been put in it, but pump air into a mine or room and a charge can be made. And so with water from the sea and any and every other natural gift. Some service must have been put into it, if only to bring

it to the place where it may be wanted. Then the principal distinction it is necessary to mind is that services are more or less enduring, from helping to put on a coat or hand a hat to building a house to last for many hundred years, though not perhaps without repairs, *i.e.*, further service. This idea of reducing all exchange to exchange of services wonderfully simplifies the problem when wages and salaries come to be considered, and it is seen at once that services have been rendered, and when exchanged are exchanged for goods, which are also services themselves in an embodied form. For then the truth comes out with greater force that if the services do not make the goods which are services, how can goods be given in return? If it is a question of distributing the goods which have been made among those who made them, that is one problem. If it is a question of distributing goods which never will be made, the problem is quite another, and does not seem easy of solution. This is the great problem which labour has to meet, to distinguish between these two classes of cases, and not to fight the one with weapons suited to the other. And then exchange is always through a medium, and hardly ever can it be direct in the market-places of the world, and the problem is much simplified if it is not necessary to consider anything but just services as the ultimate things exchanged through the medium, and by the standard of currency. There is another advantage to be gained by looking upon exchange as having for its subject matter services alone. The problem is brought down to simple dimensions such as the ordinary mind can deal with firmly and securely. The great principles upon which all the intricate circumstances of actual life must be regulated stand out clearly. We shall see, for one instance, that the term unearned income is contradictory or incomplete. For even if the income has been given to A by B, B must have earned it, or if not B, then

some one else. Always services must have been rendered. So when the income tax distinguishes income as unearned because it is a return for money lent, it foolishly implies that to lend money is no service, whereas in fact it is a service of the utmost value, and one without which production could not continue, and the world live under the conditions of life which now prevail, viz., that it lives by exchange of services, which are, and to-day must be, exchanged through a medium.

Service is being continually rendered so long as the owner of the investment leaves it in that investment. He might sell the investment and spend the money he so got, thus so far as he is concerned no longer putting the money which the investment cost at the disposal of the company or other borrower. That the borrower is not repaid but the investment passes over to another lender is immaterial to our present consideration.

Again the truth that we all live by, and have our being from, exchange of services shows at once the fallacy of the right to work theory. The right to work is the right to render services. No one is prevented from giving service if he will give it without exchange. But if no one can or will give a service in exchange, what is to happen? In fact the man **A** who offers a service claims the right to demand a service in exchange from a man **B.** If so then **A** too can be ordered to give a service which **B** may want. But if **B** wants no service or can give no service in return, exchange closes down. And when exchange is made through currency and prices are forced up by inflation but incomes do not rise proportionally it is clear exchanges are restricted. This is how the currency machine acts to shut down exchanges. Behind the whole position lies the fact that **A** and **B** cannot exchange services because **A** and **B** cannot under the circumstances meet each other on the price of one or other commodity.

How angels should weep and devils jeer at our supernatural stupidity, in refusing to recognise the facts of the position, which a study of exchange makes clear.

APPENDIX D.

The idea intended to be conveyed by the simile of the children dancing round a maypole is that all exchanges are of goods and services and that exchanges should be round an average price, which so far as possible should not vary, though it must also be at a suitable pitch. When it has been greatly disturbed as by inflation it must be brought back to a suitable position by regulated deflation. This done, the essential point is that it should be kept in this position so far as this may be possible. As I have shown, and as the mathematical expression clearly shows, this is quite possible.

APPENDIX E.

At page 16 of "Currency and Employment" I said: "Silver and copper coins may be disregarded for our argument for reasons which if well understood, viz., the essential limitation of these coins, with the consequences of such limitation, would explain the whole apparent mystery of currency."

Now the essential limitation of these coins is that they are only maintained in currency just to the extent which they are required. Only £2 can legally be paid in silver and one shilling in copper. More than this can be refused and more cannot be demanded. And so it happens that so long as there is free exchange of these fractional currencies with the unitary currency—the note—at the Treasury there will be no glut or scarcity of the fractional currency which will not speedily correct itself.

Similarly, there should be an essential limitation of the unitary currency if it is to maintain a uniform

value and that limitation is that its amount must bear a constant relation to the exchanges it has to make. As it is not possible to foresee how many exchanges will be made, and as these fluctuate from time to time, the usual course of measuring the future by the past must be adopted and the index number which tells us of the past must be the guide to future action in increasing or diminishing the supply of currency, and this it is in our power to do.

APPENDIX F.

The Cunning Malignancy of the Bolshevist Leaders.

The cruel cunning of the Bolshevist leaders—Lenin or Trotsky possibly—is shown in that they have hit on the most vulnerable point of the capitalistic system (which to-day is the only possible system) of exchange by a medium, the currency. They probably saw that they could deceive by the process of inflation (which is multiplication of the currency), which acts gradually and insidiously and like a drug seems to give relief enabling loans to be easily raised. Like the drug the method only gives immediate *temporary* relief, and does so at the cost of future greater suffering and ultimate ruin and destruction. The Bolshevist leaders destroyed their paper currency through the press and by pouring out their gold to America (ultimately) have helped to injure the currencies of America and other gold currency countries. Much else they have done to destroy production, but this alone would have gone far to destroy their country.

Out to destroy the capitalistic system, they have succeeded, but only at the cost of destroying humanity at the same time, for only a very primitive community can live without a medium of exchange, which is currency. Of both achievements they boast, for their love is not for human welfare, but only for their own welfare.

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